

Kindergarten Math Inventory

2015-2016 NYC End-of-Year Performance Tasks

Instructions

- Tasks may not be shared with students prior to administration.
- If the above-named NYC Performance Task is being administered for evaluative purposes, the End-of-Year task may be administered by the regular classroom teacher but **may not be scored** by the regular classroom teacher.
- Tasks should be administered as individual interviews.
- Administration of interviews should be conducted in intervals of 5 to 15 minutes.
- Administration may occur over several days, depending on student responses and ability to attend to the task.
- Students should be provided with paper for writing and/or planning as needed. Papers that contain student responses should be collected and scored.
- Extra manipulatives booklets for the inventory are available for download in Schoolnet under the assessment's Associated Resources section.
- Students should receive all accommodations normally provided for a class or state test.
- For complete administration information, see the MOSL Assessment Administration Handbook.

Name: _____ Date: _____

Directions: When administering this assessment, begin with question 1 and follow the guidance at the bottom of each cluster. A successful response is one that receives full credit; move on to the next sequential question. If response does not receive full credit, follow the guidance at the bottom of the cluster. ***This assessment inventory is aligned to both Kindergarten and Grade 1 standards so that students can have the opportunity to demonstrate above-grade-level thinking when applicable. Kindergarten students are not required to demonstrate above-grade-level thinking.***

Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Know number names and count the sequence.	(K.CC.1) (1) Rote Counting by Ones: Start by asking the student to count with you by ones. Say "One, two, three," and then ask the student to continue counting as high as he/she can.	Stop the student when he/she counts correctly by ones to reach 25. ----- or ----- Stop the student if the counting sequence becomes incorrect. Record the last correct number.	Correctly counts to 25 : ____ [2] Correctly counts to at least 20 : ____ [1] No response or does not correctly count to 20: ____ Last correct count: ____ [0]
Know number names and count the sequence.	(K.CC.2) (2) Counting on from a Number Other Than One: Ask the student to continue counting up by ones from: • 3 • 11 Say "Start counting at 3 and I'll tell you when to stop." Stop the student at 10. Say "Start counting at 11 and I'll tell you when to stop." Stop the student at 25.	If the student does not know how to answer the question, then model for him/her. Prompt: Say "Let me show you how to start counting at 7, and then you can show me how to start counting at 3. Okay, 7, 8, 9 . . . Now, can you show me how to start counting at 3?"	Correctly counts from 3 to 10 : ____ Correctly counts from 11 to 25 : ____ Unable to start counting from a number other than one, or subvocalizes the numbers starting at one: ____ [2] – Both correct [1] – 1 correct [0] – No response or both incorrect

- ➡ If a student is successful on Item 2, then proceed to Item 3.
 ➡ If a student is not successful on Item 2, then proceed to Item 4.

Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Extend the counting sequence.	(1.NBT.1) (3) Counting on from a Number Other Than One: Say "Please start counting at 85 and count as high as you can."	<p>Stop the student when he/she counts correctly by ones to reach 120.</p> <p>----- or -----</p> <p>Stop the student if the counting sequence becomes incorrect. Record the last correct number.</p> <p>Prompt: If the student does not know how to answer the question, then model for him/her. Say "Let me show you how to start counting at 62. Okay, 62, 63, 64 . . . Now, can you show me how to start counting at 85?"</p>	<p>Correctly counts to 120: ____ [3]</p> <p>Correctly counts to 110: ____ [2]</p> <p>Correctly counts to 100: ____ [1]</p> <p>Correctly counts to: ____ [0]</p> <p>Unable to start counting from a number other than one, or subvocalizes the numbers starting at one: ____ [0]</p>
➡ Proceed to Item 4.			
Know number names and count the sequence.	(K.CC.1) (4) Skip Counting: Say "Sometimes we count by tens, like 10, 20 . . . Please count as high as you can by tens."	<p>Stop the student when he/she counts correctly by tens to reach 100.</p> <p>----- or -----</p> <p>Stop the student if the counting sequence becomes incorrect. Record the last correct number and the type of error.</p>	<p>Correctly counts by tens to 100: ____ [2]</p> <p>Correctly counts by tens to at least 30: ____ [1]</p> <p>Unable to count by tens: ____ Last correct count: ____ Error: ____ [0]</p>

➡ If a student is successful on Item 4, then proceed to Item 5.

➡ If a student is not successful on Item 4, then proceed to Item 6.

Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Use place value and properties of operations to add and subtract.	<p>(1.NBT.5)</p> <p>(5) Adding and Subtracting Ten: Present the student with the following number card and say, "Without counting, can you tell me what number is 10 more than 12?"</p> <p>After the student responds, ask "How do you know?"</p> <p>Then ask "Without counting, can you tell me what number is 10 less than 12?"</p> <p>After the student responds, ask "How do you know?"</p>	Record the student's response and explanation in the student response column for Item 5.	<p>Gives the correct answer, 22, without counting?: Y N Explanation: _____</p> <p>Gives the correct answer, 2, without counting?: Y N Explanation: _____</p> <p>No response or incorrect response: _____ Explanation of incorrect response: _____</p> <p>[2] - Both correct [1] - 1 correct [0] - No response or both incorrect</p>

➡ **Proceed to Item 6.**

Know number names and the count sequence.	<p>(K.CC.3)</p> <p>(6) Writing Numbers from 0 to 20: Ask the student to write the numbers from 0 to 20 on a lined sheet of paper.</p>	<p>Allow time in between naming numbers for students to scribe.</p> <p>Scoring: One-digit numbers may be written backwards. Two-digit numbers written in reverse order are unacceptable response.</p> <p>Attach student work to response form.</p>	<p>Correctly writes the numbers from 0 to 20?: ____ [2]</p> <p>Correctly writes a portion of the number set: ____ [1]</p> <p>No response or incorrect response: ____ [0]</p>
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➡ **If a student is successful on Item 6, then proceed to Item 7.**

➡ **If a student is not successful on Item 6, then proceed to Item 8.**

Name: _____ Date: _____




Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Extend the counting sequence.	<p>(1.NBT.1)</p> <p>(7) Reading and Writing Numerals from 0 to 120: Present the student with the number card 70 and say "Please tell me the name of this number."</p> <p>From 0 to 120: Present the student with the number card 118 and say "Please tell me the name of this number."</p> <p>Provide the student with paper and pencil and say "Please write the number eighty." Say "Please write the number one hundred and six."</p>	<p>Allow time in between naming numbers for students to scribe.</p>	<p>Says 70: ____</p> <p>Says 118: ____</p> <p>Correctly writes 80: ____</p> <p>Correctly writes 106: ____</p> <p>[4] - All 4 correct [3] - 3 correct [2] - 2 correct [1] - 1 correct [0] - No response or all 4 incorrect</p>

➡ **Proceed to Items 8 and 9.**

Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Count to tell the number of objects.	<p>(K.CC.4)</p> <p>(8) Estimation¹: Place a sheet of paper and 22 counters in a pile in front of the student.</p> <p>Prompt: "Let's estimate the number of counters in this pile. About how many do you think there are?"</p> <p>(a) Cardinality: Say "Let's check our estimate. Can you count the objects in the pile and tell me exactly how many you have?"</p> <p>(b) When the student is finished counting, ask "How many counters (objects) are there altogether?"</p> <p>(c) Number Conservation: Spread the same number of counters out in a larger space. Ask "How many are there now?"</p>	<p>(a) While student counts, check for one-to-one correspondence.</p> <p>(b) Record the cardinality response to determine if the student understands that the last number named tells the amount counted.</p> <p>(c) Check and record if the student understands that the amount remains the same. Record the response and the manner in which it was made.</p>	<p>Estimate: ____</p> <p>(a) Correctly counts 22 counters?: Y N</p> <p>One-to-one correspondence up to: ____</p> <p>(b) How many are there altogether?: ____</p> <p>(c) How many counters are there now?: ____</p> <p>Gives the correct answer without recounting: ____</p> <p>Recounts to determine the answer: ____</p> <p>No response or incorrect response: ____</p> <p>[3] - All correct [2] - 2 correct [1] - 1 correct [0] - No response or both incorrect</p>

➡ **Proceed to Item 9.**

¹The "estimation" question is used to motivate students to check and find out how many there are.

Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Compare numbers.	<p>(K.CC.6)</p> <p>(9) Comparing Two Numbers: Present the student with an assortment of black-and-white cubes (or any combination of two different colored cubes).</p> <p>Prompt: "Which color has more cubes?"</p> <p>(a) Arrangement 1: 4 black cubes, 3 white cubes </p> <p>(b) Arrangement 2: 4 black cubes, 5 white cubes </p> <p>(c) Arrangement 3: 7 black cubes, 5 white cubes </p>	<p>If the student is unresponsive, prompt: "Some of the cubes are black and some of the cubes are white. Find out which color has the most cubes by counting."</p>	<p>(a) Arrangement 1: Answers that there are more black cubes: Y N</p> <p>(b) Arrangement 2: Answers that there are more white cubes: Y N</p> <p>(c) Arrangement 3: Answers that there are more black cubes: Y N</p> <p>[3] - All 3 correct [2] - 2 correct [1] - 1 correct [0] - No response or all 3 incorrect</p> <p>Did student need instructions repeated or an additional prompt?: Y N</p>

- ➡ If a student is successful on Item 9, then proceed to Item 10.
- ➡ If a student is not successful on Item 9, then proceed to Item 11.

Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Understand place value.	<p>(1.NBT.3)</p> <p>(10) Present the student with the number card "7 ____ 4" and symbol cards.</p> <p>(a) Say "Which number is greater?"</p> <p>After the student has identified a value, say "Please put the correct symbol between these two numbers."</p> <p>Repeat the procedure with the following sets:</p> <p>(b) 12 ____ 18</p> <p>(c) 26 ____ 62</p> <p>(d) 57 ____ 57</p>	<p>Card Placement: Place symbol cards on or near the space between the numbers to show greater than, less than, or equal to.</p> <p>> greater than < less than = equal to</p> <p>Stop work if the student cannot correctly identify which is greater in the first two pairs.</p>	<p>(a) Correctly identifies 7?: Y N Correctly identifies $7 > 4$?: Y N</p> <p>(b) Correctly identifies 18?: Y N Correctly identifies $12 < 18$?: Y N</p> <p>(c) Correctly identifies 62?: Y N Correctly identifies $26 < 62$?: Y N</p> <p>(d) Correctly identifies 57 as equal to 57?: Y N Correctly identifies $57 = 57$?: Y N</p> <p>[3] - Correctly identifies all 3 numbers that are "greater" and the 1 pair of numbers as "equal." Uses symbols correctly in all four number card sets</p> <p>[2] - Correctly identifies all 4 numbers and at least 2 symbols</p> <p>[1] - Correctly identifies all 4 numbers</p> <p>[0] - No response or incorrect responses</p>

➡ **Proceed to Item 11.**

Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Understand addition, understand subtraction.	<p>(K.OA.1)</p> <p>(11) Represent Addition and Subtraction: Have objects for students to count, as well as paper, pencils, and crayons available for the student.</p> <p>Prompt: "You may write, draw, or use objects and words to represent the following problems."</p> <p>(a) Say "What does 3 plus 1 look like? Show me by drawing, writing, or with objects."</p> <p>Continue with the following problems:</p> <p>(b) $6 + 2$</p> <p>(c) $5 - 1$</p> <p>(d) $7 - 4$</p>	<p>Students may model the operations using expressions, equations, manipulatives, drawings, etc. Students are not required to solve the problems.</p> <p>If the student is unable to solve the problem using mental math, say "You can use paper and pencil or counters to find the answer."</p> <p>Note the strategy that the student uses to represent each problem and record any incorrect responses.</p>	<p>(a) $3 + 1$ Shows 3 and adds 1: Y N Counts all ____ Just knows ____ Other ____</p> <p>(b) $6 + 2$ Shows 6 and adds 2: Y N Counts all ____ Just knows ____ Other ____</p> <p>(c) $5 - 1$ Shows 5 and takes away 1: Y N Counts all ____ Just knows ____ Other ____</p> <p>(d) $7 - 4$ Shows 7 and takes away 4: Y N Counts all ____ Just knows ____ Other ____</p> <p>[4] - All 4 correct [3] - 3 correct [2] - 2 correct [1] - 1 correct [0] - No response or all 4 incorrect</p>

- ➡ If a student is successful on Item 11, then proceed to Item 12.
- ➡ If a student is not successful on Item 11, then proceed to Item 13.

Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Work with addition and subtraction equations.	<p>(1.OA.7)</p> <p>(12) Have counters, paper, and a pencil available for the student.</p> <p>(a) Present the student with the equation card "3 + 4 = 7" and say, "Please tell me if this number sentence is true or false."</p> <p>After the student responds, ask "Why is this number sentence true/false?" Record the student's response.</p> <p>Repeat the process with the following equations:</p> <p>(b) 8 + 0 = 9</p> <p>(c) 5 = 4 + 1</p> <p>(d) 2 + 4 = 4 + 2</p>	<p>If the student has difficulty using the terms "true" and "false," allow him/her to use terms that may be more familiar, such as "right" and "wrong."</p> <p>If the student is unable to solve the problem using mental math, say "You can use paper and pencil or counters to find the answer."</p> <p>Stop work if the student cannot correctly identify the first two pairs.</p>	<p>(a) 3 + 4 = 7 (True): Y N Response: _____</p> <p>(b) 8 + 0 = 9 (False): Y N Response: _____</p> <p>(c) 5 = 4 + 1 (True): Y N Response: _____</p> <p>(d) 2 + 4 = 4 + 2 (True): Y N Response: _____</p> <p>[4] - All 4 correct [3] - 3 correct [2] - 2 correct [1] - 1 correct [0] - No response or all 4 incorrect</p>

➡ **Proceed to Item 13.**

Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Understand addition, understand subtraction.	<p>(K.OA.2)</p> <p>(13) Solve Addition and Subtraction Word Problems (within 10): Have (counting) objects, paper, pencils, and crayons available for the student.</p> <p>Read the following to the student:</p> <p>(a) "Maria had 2 pencils and the teacher gave her 4 more pencils. How many pencils does Maria have in all?" Prompt: "You may write, draw, or use objects to represent the problem."</p> <p>(b) "Josh had 5 crackers for his snack. He ate 4 crackers. How many does Josh have left?" Prompt: "You may write, draw, or use objects to represent the problem."</p>	<p>Repeat the word problems up to three times, if necessary.</p> <p>Note the strategy that the student uses to represent each problem or attach student work. Record any incorrect responses.</p>	<p>(a) Gives the correct answer (6) Shows 2 and adds 4 more: Y N Counts all _____ Just knows _____ Other _____ No response or incorrect response _____</p> <p>(b) Gives the correct answer (1) Shows 5 and takes 4 away: Y N Counts all _____ Just knows _____ Other _____ No response or incorrect response _____</p> <p>[2] - 2 correct responses [1] - 1 correct response [0] - No response or incorrect responses</p>

➡ If a student is successful on Item 13, then proceed to Item 14.

➡ If a student is not successful on Item 13, then this is the end of the inventory task for this student.

Clusters	Item/Question	Teacher Notes and Prompts	Student Response
Represent and solve problems involving addition and subtraction.	<p>(1.OA.1)</p> <p>(14) Solve Addition and Subtraction Word Problems (within 20): Have (counting) objects, paper, pencils, and crayons available for the student.</p> <p>Read the following to the student:</p> <p>(a) "Ten friends were at the playground. Six new friends came to play. How many friends are at the playground now?" Prompt: "You may write, draw, or use objects to represent the problem."</p> <p>(b) "Jaime's mother baked twelve cupcakes. Jamie ate three cupcakes. How many cupcakes are left?"</p>	<p>Repeat the word problems up to three times, if necessary.</p> <p>Note the strategy that the student uses to represent each problem or attach student work. Record any incorrect responses.</p>	<p>(a) Gives the correct response (16) Y N Adds 10 and 6 using an expression or equation: _____ Draws a model to solve _____ Other _____ No response or incorrect response _____</p> <p>(b) Gives the correct response (9) Y N Subtracts 3 from 12 using an expression or equation: _____ Draws a model to solve _____ Adds up from 3 to 12 _____ Other _____ No response or incorrect response _____</p> <p>[2] - 2 correct responses [1] - 1 correct response [0] - No response or incorrect responses</p>

➡ **This is the end of the inventory task.**